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Congress of the United States
U.S. House of Representatives
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DAVE WELDON, M.D.
15TH DISTRICT, FLORIDA

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HUMAN SERVICES
THE DISTRICT OF COLUMBIA

May 4, 2004

Mr. Paul Jackson
Federal Communications Commission, Washington DC
Director Office of Legislative and Intergovernmental Affairs
1919 M St, N.W.
Washington, DC 20554

Dear Mr. Jackson:

Enclosed is a copy of correspondence I have received from my constituent, Mr. Bob Lombardi of Melbourne, Florida, concerning the Federal Communications Commission dockets ET 03-104 and 04-37.

Mr. Lombardi does not want the FCC to require Broadband of Power lines (BPL) and requests that the FCC revisit their position on the matter. I would appreciate it if you would review the enclosed letter and provide me with any information that may be helpful to my constituent. Please direct your response to my District Office address listed above.

I am grateful for any assistance you may be able to provide in this matter.

Sincerely,



Dave Weldon
Member of Congress

DJW:sl

Enclosure

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28 April 2004

Representative David Weldon, M.D.
2725 Judge Fran Jamieson Way
Building C
Melbourne, FL 32940

Dear Mr. Weldon,

I am writing to you because you have previously expressed support for those of us in your district who are amateur radio operators. To be honest, I had not intended to write this letter at this time, but the recent speech by the president has made it seem that an NPRM before the FCC has more political backing than most and I would appreciate your involvement on amateur radio's behalf. I know you are a busy man, and I promise to keep this short.

In a recent speech, the president endorsed the concept of broadband over power lines, or BPL. The FCC issued a notice of inquiry on this last year, and there is currently a couple of items before the FCC for public comment: Dockets ET 03-104 and 04-37 (NPRM 04-29A1). I have already filed comments with the Commission.

To put it as succinctly as possible, BPL is neither a technically or economically sound method of getting broadband access to remote locations. Anything that can be done to halt BPL needs to be done.

Before I begin addressing my concerns, a few words about my qualifications and perspective seem to be in order. I am professionally a radio design engineer for Rockwell Collins, Inc. in Melbourne, an amateur radio operator since 1976 (currently W4ATM), and a lifetime shortwave radio listener. As such, I have extensive hobby experience with HF radio and professional experience in the design of HF radio for civil aeronautics. My design specialty is receiver design. I have experience with the measurement of radio emissions to comply with FCC rules. In short, the measurement and design of systems that use the same spectrum as BPL is what I do for a living.

While I agree that broadband access is a wonderful thing, BPL is technically a bad idea. The data signals that will be put on the powerlines are by their very nature radio signals. The powerline infrastructure is not designed to handle signals like these, and as a result, the BPL signals will radiate and interfere with the services that currently use HF. To give you a broad-brush picture, a typical user of the HF spectrum, in the middle of the HF band, will experience an increase in noise of roughly 20,000 times, utterly destroying HF communications for all but the strongest signals. This simple, back of the envelope calculation has been verified in every test around the world. Most countries have dropped the idea after spending lots of money trying to make it work. At every field trial in our country, hams are reporting terrible interference levels.

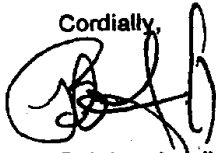
In Brevard County, and around the nation, amateur radio operators form the backbone of the emergency communications systems. Amateurs have been first responders in every disaster our country has weathered since radio became possible - including 9/11. BPL will devastate amateur operations, but it will also affect aviation safety, maritime safety, hurricane disaster recovery, government communications, FEMA and even pure science. Just as big a problem, the BPL data link to consumers can be interrupted by low transmitter powers, so that any ham, other licensed HF user, or CB'er can take out the BPL system with as little as 5 watts. The result will be a system that is too unreliable for consumers.

There are much better ways to get broadband into the remote areas. Communications analysts, technical analysts at stock brokerages, even the BPL companies themselves, have said it will not be profitable to run service to remote areas. The side effect of the powerlines not being designed to handle radio signals like BPL is that the BPL degrades quickly on the powerlines, and expensive repeaters are required too frequently to provide the service at low cost. Broadband radio or wireless links, like the wireless LANs you are undoubtedly familiar with, are more cost effective ways of getting the signal to remote farms.

One of the points in the FCC's NPRM is how to change the specifications for these devices so that BPL will not cause harmful interference. The problem is not solvable that way because of cost. The current radiated power limits would need to be the previously-mentioned 20,000 times lower to not cause harmful interference. That would make the economics even worse, drastically increasing the cost of the BPL boxes. BPL seems like a mid-'90s "dot bomb" idea. It is technically and economically a bad idea, not worthy of your backing.

I would be delighted to discuss this further with you, should you require more information. I hope you'll be able to discuss BPL with the FCC and convince them the idea needs to be dismissed.

Cordially,



Bob Lombardi
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Melbourne, FL 32935
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